search profile;

routing the modified search request to the search engine for use in searching the search engine collections, whereby the search engine compares the particular service identification to the service identifications to select a subset of the search engine collections for use in the searching.

REMARKS

The specification is amended to correct two typographical errors.

Prior to this Amendment and Response, Claims 1-21 were pending in this application. Independent Claim 1 is amended to clarify how the search profile is applied and that it creates a filter for limiting a client's access to search engine collections (e.g., not used merely for obtaining better results by providing tools for weighting). Support for this amendment is found at least at page 14, lines 8-34. Independent Claim 7 is amended to clarify that the search engine interfaces acts to modify content in the retrieved set of information (not just meta tags or wrapping) to control access by the search engine to the content and to enhance the effectiveness of the search. Support for this amendment is found at least at page 13, lines 6-22 of the specification. Independent Claim 18 is amended to include the limitations of dependent Claim 21 such that Claim 18 includes search engine collection population controls similar to Claim 7 (and Claim 21 is cancelled) and Claim 19 is amended to correct antecedent basis.

New Claim 22 is added to protect the concept that populating the search engine collection is performed to facilitate later searching using search profile information (i.e., the search engine interface acts concurrently to control population of a search engine content collection as well as controlling access to such a collection by a user). Support for this new claim is found at least at page 14 of the specification.

No new matter is added by these amendments and claim additions. Claims 1-20 and 22 are pending in this application for consideration by the Examiner.

Rejection of Claims 1, 2, 4, and 5

In the Office Action of December 3, 2002, Claims 1, 2, 4, and 5 were rejected under 102(e) as being anticipated by U.S. Patent No. 6,327,590 ("Chidlovskii"). This rejection is traversed based on the amendments to Claim 1 and on the following comments.

Claim 1 is directed to a method for controlling access provided to a client to content files. In other words, the method of Claim 1 calls for filtering what content is accessible to a searching client and what content will be included in a search result. To this end, Claim 1 calls for "creating a modified search request by applying a search profile for the client to the received search request" then "routing the modified search request to a search engine having a search engine collections populated from the content files." Significantly, Claim 1 requires that the applying of the search profile includes "adding at least a portion of the search profile to the received search request to specify a set of the search engine collections to be searched by the search engine with the modified search request." See, for example, the specification at page 14, lines 1-34 for further explanation of these functions of the method of Claim 1. Claim 1 calls for a filtering or limiting function to be provided by adding a portion of a search profile to a received search request to control what content is searched and what content is included in a search result. Such a control of access is not shown in the prior art, and Claim 1 is believed allowable.

More particularly, the Office Action cites Chidlovskii at Fig. 2 and col. 4, lines 19-25 for teaching each element of Claim 1. Figure 2 does show a search pre-processor 30 in a meta-search engine 80 that appears to use a user profile 50 and communicate with search engines 20. However, the post-processor 40 functions to use the user profile "to rank the results of a search query" (see, col. 3, lines 23-30). Further, as cited in the Office Action at col. 4, beginning at line 16, Chidlovskii describes the pre-processor 30 as applying a predetermined user context to determine "the context of the query." This functioning of the pre-processor 30 is explained further at col. 8, lines 26-55 which explains that "the search pre-processor takes the query and processes the keywords in the query to a query profile...used by the search post-processor later" (i.e., to rank the results). In other words, the pre-processor 30 acts to create a query profile used later to process the search results.

Hence, Chidlovskii fails to provide any teaching of "adding at least a portion of the search

profile to the received search request." It appears that the received query is simply passed on to the search engines 20 where it is applied to all collections accessible by the search engines. There is no teaching that applying a portion of the profile to the search request could be used to "specify a set of the search engine collections to be searched by the search engine with the modified search request." Because each element of Claim 1 is not shown, Chidlovskii fails to anticipate Claim 1. Claims 2, 4, and 5 depend from Claim 1 and are believed allowable for at least the reasons for allowing Claim 1.

Rejection of Claim 3

In the Office Action of December 3, 2002, Claim 3 was rejected under 103(a) as being unpatentable over Chidlovskii in view of U.S. Patent No. 6,360,205 ("Lyengar"). This rejection is traversed because Claim 3 depends from Claim 1, which is believed allowable over Chidlovskii. Further, Lyengar does not overcome the deficiencies in Chidlovskii in that it provides no teaching of adding a portion of a search profile onto a received search request to limit access to a search engine collection.

Rejection of Claim 6

Additionally, in the Office Action, Claim 6 was rejected under 103(a) as being unpatentable over Chidlovskii in view of U.S. Patent No. 6,360,215 ("Judd"). This rejection is traversed because Claim 6 depends from an allowable independent claim. Additionally, Judd does not teach modifying a search request as discussed above. Claim 6 further calls for "intercepting an indexing request from the search engine for a set of information ... and returning to the search engine a modified form of the requested set of information." Judd is cited at Fig. 1 for teaching these additional functions. However, after reviewing Judd at Fig. 1 and at col. 5., line 62 to col. 8, line 29 where Fig. 1 is described, Applicant could find no teaching or suggestion that it may be desirable to intercept a search engine indexing or populating request by retrieving the requested data from a content store but yet returning a modified version of the retrieved data. This is useful for controlling how the search engine collections is populated (i.e., limiting access to content by the search engines), and thus, limiting access by clients who later submit search requests as the collection is different than the raw information in the content store. See, also, Applicants' specification at page 13, lines 6-22. Claim 6 is believed allowable for this additional

reason over the combination of Chidlovskii and Judd.

Rejection of Claims 7-9 and 13

Further, in the Office Action, Claims 7-9 were rejected under 103(a) as being unpatentable over U.S. Patent No. 6,253,198 ("Perkins") in view of U.S. Patent No. 6,055,543 ("Christensen"). This rejection is traversed based on the amendments to Claim 7 and the following remarks.

Independent Claim 7 is directed to a method for restricting access to content files by a search engine that calls for "positioning a search engine interface between the client and the search engine, wherein the search engine interface is also positioned between the search engine and the content files." The search engine interface then receives "an indexing request from the search engine for a set of information from the content files." Significantly, the method further includes the two steps of "operating the search engine interface to retrieve the set of information from the content files" and then "modifying content in the set of information with the search engine interface." Hence, the method of Claim 7 requires that the search engine interface act as a intermediary between the search engine and the content files (no direct access provided as was the case in prior art systems) and is then able to control what "content" is returned to the search engine for use in "populating a search engine collections." Each of these features is not shown by the combination of Perkins and Christensen.

Specifically, Perkins is cited at col., 1, lines 59-61 and col. 6, lines 1-3 for teaching positioning a search interface between a search engine and content files. However, Perkins teaches providing a standard interface such as a Common Gateway Interface (CGI) between the client (which sends the "query") and the search engine but not an interface between the search engine and the content files. Note, the "search engine database" described at col. 6, lines 1-3 is a search engine collections so this citation also discusses a CGI between a client and a search engine used for allowing a user to add to, modify, or delete information in the search engine collections (but not for controlling interactions between a search engine and content files used to populate the collections). Hence, the positioning step of Claim 7 is not shown or suggested.

Perkins is cited at col. 10, lines 27-67 for teaching operating the search engine interface to retrieve the set of information from the content files. However, at this point, Perkins is

discussing how to update the search engine database and search engine index using a CGI program (i.e., which was positioned between the client and the search engine). There is no teaching that the search engine when populating its collections or database would go through a search engine interface that would retrieve information identified in an indexing request from content files (typically in a manner that is transparent to the search engine).

The Office Action notes that Perkins does not teach modifying content in the retrieved set of information with the search interface engine but cites Christensen at col. 6, lines 49-50. First, it should be stressed that because Christensen provides no teaching of modifying data retrieved from a content source prior to placing it in the search engine collections that there would be no motivation to modify Perkins to arrive at the invention of Claim 7. Further, Christensen at col. 6, lines 49-50 is describing modifying tags in metadata used as a wrapper around content. Claim 7 as amended requires that the modifying be to the "content in the set of information with the search engine interface" and not only to metadata tags. Modifying the content allows the search engine interface to act to control access to the content files by the search engine and to control what information is used to populate the search engines collections. Christensen does not overcome the deficiencies of Perkins (no teaching of providing a search engine interface that is positioned between the search engine and the content files and no teaching of operating the search engine interface to retrieve the set of information in the content files for the search engine). Hence, Claim 7 is believed allowable over the combination of Perkins and Christensen, and Claims 8, 9, and 13 depend from Claim 7 and are believed allowable for the reasons for allowing Claim 7.

Rejection of Claim 10

In the Office Action, Claim 10 was rejected under 103(a) as being unpatentable over Perkins in view of Christensen further in view of U.S. Patent No. 6,263,330 ("Bessette"). Claim 10 depends from Claim 7 and is believed allowable for the reasons for allowing Claim 7. Further, Bessette does not teach the functions missing in Perkins and Christensen discussed with reference to Claim 7. Bessette is cited at col. 11, lines 32-37 for teaching applying the search request to select collections as called for in Claim 10. Again, the Office Action does not indicate any motivation in Perkins or Christensen for limiting access to the search engine collections, and

such motivation must be present in the cited references not in Applicants' specification. Further, Bessette teaches accessing and interfacing with a database using DBMS logic rather than with a search engine.

Additionally, Bessette appears to teach masking or filtering results after the data is accessed to avoid returning confidential information (the DBMS logic performs the search "on all data contained within the NDSMR database...ensuring that confidential data or specific confidential parts of the data being accessed is masked when returned to he client"). This implies that the search is applied to the entire database and then the DBMS logic modifies/masks the results prior to transmitting to requesting client but not that only "select collections in the search engine collections" are defined in a search profile for use in applying the search request. Therefore, when Bessette is combined with Perkins and Christensen, the claimed invention of Claim 10 is not achieved, and Claim 10 is non-obvious in light of the combined teachings of these references.

Rejection of Claims 11 and 12

In the Office Action, Claims 11 and 12 were rejected under 103(a) as being unpatentable over Perkins in view of Christensen further in view of Chidlovskii. Claims 11 and 12 depend from Claim 7 and are believed allowable for at least the reasons for allowing Claim 7. Further, Claim 11 calls for modifying the search request by operating the search engine interface in a fashion similar to that described in Claim 1 to add a client search profile to a received search request to identify which portions of a search engine collections to apply the modified search request. The Office Action notes that such modifying is not shown in Perkins or Christensen but cites Chidlovskii for providing this teaching at col. 4, lines 19-24. But, as discussed with reference to Claim 1, Chidlovskii does not teach or suggest modifying the search request (and, clearly not adding the search profile to the request to define a set of collections) but instead discusses creating a user profile for later use by a post-processor in weighting results of a search by one or more search engines. Hence, Claim 11 and Claim 12 that depends from Claim 11 are allowable over these combined references.

Rejection of Claims 14-17

Additionally, in the Office Action, Claims 14-17 were rejected under 103(a) as being

unpatentable over U.S. Patent No. 6,119,133 ("Nusbickel") in view of Bessette. This rejection is traversed based on the following remarks.

Independent Claim 14 is directed to a Web server having "a search engine interface adapted for processing the search request to add a client search profile to the search request to define select collections in the search engine collections for applying the search request and for routing the processed search request to the search engine." The Office Action states that Nusbickel does not teach this feature but cites Bessette for teaching a search engine interface configured as required in Claim 14. However, as discussed with reference to Claim 10, Bessette fails to discuss using a profile to limit which collections within a search engine collections a search request will be applied against but instead teaches masking confidential information retrieved from a database after a search of all data is performed. Further, Bessette at the cited col. 11, lines 32-37 provides no teaching whatsoever of **adding** a client search profile to the search request" to define which portions of the collections will be accessed and searched. A user profile is mentioned but only for use in determining what to return (from the results of the search) to the client and not for use in creating a "processed search request" for routing to a search engine. Hence, independent Claim 14 is allowable over the combined references of Nusbickel and Bessette. Claims 15-17 depend from Claim 14 and are believed allowable for the reasons for allowing Claim 14.

Rejection of Claims 18-21

Also, in the December 3, 2002 Office Action, Claims 18-20 were rejected under 103(a) as being unpatentable over Chidlovskii in view of Bessette. Claim 21, which depended from Claim 20 was also rejected based on the further inclusion of Perkins but is cancelled by this Amendment and Response with its limitations being added to independent Claim 18. This rejection is traversed based on the amendments to Claim 18 and the following remarks.

Independent Claim 18 as amended includes limitation similar to that of the method of Claim 7 written in computer program and code devices language. Particularly, the computer program of Claim 18 includes code devices for creating a modified search request by applying a search profile which is not shown by Chidlovskii (see, also, the discussion provided for Claim 1). Further, the computer program includes code devices for intercepting an index request from the

search engine and generating a restricted populating set of information by modifying the results of the indexing request. The search engine then uses this restricted set to populate the search engine collections. This limitation is similar to that provided in Claim 7 ("operating " and "modifying" steps) and, also, in Claim 6. Perkins at col. 10, lines 27-67 is cited for teaching this type of intercepting but at this point, Perkins is discussing how to use a CGI to allow a client to modify a search engine database or collection. Perkins does not teach providing a device or interface for intercepting an index request from a search engine to content files used to populate the search engine collections and then providing the search engine a restricted populating set by modifying the results of applying the index request to the content files. Hence, Claim 18 is allowable over the combination of Chidlovskii and Bessette further in view of Perkins. Claims 19 and 20 depend from Claim 18 and are believed allowable for the reasons for allowing Claim 18.

Conclusions

Based on the above remarks, all pending claims are believed to be allowable over the above-discussed reference and the other reference made of record, which has been considered but is believed to be no more relevant than those cited. Consequently, the case is believed to be in condition for allowance.

A check is provided for the fee associated with adding an independent claim in excess of three independent claims. No additional fee is believed due, but any fee deficiency associated with this submittal may be charged to Deposit Account No. 50-1123.

Respectfully submitted,

Date 1/24/03

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Version With Marking to Show Changes

IN THE SPECIFICATION:

1. The paragraph beginning on page 12, line 27 was amended as follows:

The search engine 160 initiates indexing or spidering by transmitting an indexing request 250 to the search engine [request] interface 136 (no direct access provided). In one embodiment, the search engine interface 136 modifies the indexing request 250 and then calls and gathers the requested information in the indexing communication 260. The results are then transmitted to the search engine 160 in the indexing reply 270 for storage in the search engine collections 166. In another embodiment, the search engine interface 136 is configured to pass the indexing request 250 to the content files 150 to gather all the request information in the indexing communication 260. In this embodiment, the search engine interface 136 then acts to inspect the retrieved information and to modify the information by deleting information, adding additional information, or otherwise modifying the retrieved information. For example, the search engine interface 136 may remove select metatags from HTML documents, address information, or other specific information relating to documents in the content files 150. This modified information is then passed on to the search engine 160 in the indexing reply 270. In the above manner, the search engine interface 136 functions to limit or control access to the content files 150 by tightly controlling the populating of the search engine collections 166 (the information that is searched by the search engine 160), rather than allowing the search engine 160 full and direct access to the content files 150.

2. The paragraph beginning on page 16, line 9 was amended as follows:

In the above examples, the modified search request 220 is created by adding on a restrictive term (i.e., the client search profile 214) to the search request 210. In an alternative embodiment, the search engine interface 136 is configured to be context sensitive to modify the search terms in the search request 210 to better suit information in the content files 150 or to control access. For example, the search engine interface 136 may be linked to a glossary database (not shown) that includes listing of terms used in the content files 150 that are similar to those that may be submitted by the clients 104, 110. In this example, the client may submit

"server application" and the glossary database may include the term "servlet" for this phrase. The server engine interface 136 may be configured to replace the submitted search term with the more appropriate (e.g., accurate) search term. In more general terms, the search engine interface 136 is functional to control access to the search engine collection by modifying the received search request 210 in numerous ways to restrict access and/or to improve the searching efficiency.

IN THE CLAIMS:

Claims 1, 7, 18, and 19 are amended as follows:

1. (Amended) A method for controlling access provided to a client to content files during an information search based on a client search profile, comprising:

receiving a search request from a client;

creating a modified search request by applying a search profile for the client to the received search request; and

routing the modified search request to a search engine having a search engine collections populated from the content files[.] ;

wherein the applying of the search profile includes adding at least a portion of the search profile to the received search request to specify a set of the search engine collections to be searched by the search engine with the modified search request.

7. (Amended) A method for restricting direct access to content files by a search engine and a client during an information search initiated by the client and performed by the search engine, comprising:

positioning a search engine interface between the client and the search engine, wherein the search engine interface is also positioned between the search engine and the content files;

receiving with the search engine interface an indexing request from the search engine for a set of information from the content files;

operating the search engine interface to retrieve the set of information from the content files;

modifying content in the set of information with the search engine interface;

passing the modified set of information to the search engine for use in populating a search

engine collections;

receiving at the search engine interface a search request from the client; and

routing the search request to the search engine for use in searching the search engine collections.

18. (Amended) A computer program for controlling access to content files during an information search initiated by a client and performed by a search engine, comprising:

first computer code devices configured to cause a computer to receive a search request from the client;

second computer code devices configured to cause a computer to create a modified search request by applying a search profile for the client to the received search request; [and]

third computer code devices configured to cause a computer to route the modified search request to the search engine, the search engine being communicatively linked to a search engine collections populated with a set of information from the content files; and

fourth computer code devices configured to cause a computer to intercept an indexing request from the search engine for information from the content files and to generate a restricted populating set of information by modifying results of the indexing request, wherein the search engine uses the restricted populating set to populate the search engine collections;

wherein the search profile defines select ones of the search engine collections for applying the modified search request during the information search.

19. (Amended) The computer program of claim 18, further including [fourth] fifth computer code devices configured to cause a computer to generate the search profile based on client information.